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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,259	12/27/2000	Yuji Aburakawa	201222US2	4738
22850	7590	06/01/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			BELLO, AGUSTIN	
			ART UNIT	PAPER NUMBER
			2633	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/748,259

Applicant(s)

ABURAKAWA ET AL.

Examiner

Agustin Bello

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-13, 15-17 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-13, 15-17 and 19-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-13, 15-17, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sonetaka (U.S. Patent No. 6,487,392) in view of Acampora (U.S. Patent No. 6,314,163).

Regarding claims 19-21, Sonetaka teaches a central control station (reference numeral 2 in Figure 1) which controls base stations (reference numerals 3 in Figure 1) connected thereto, and is connected to an upper-level station (reference numeral 1, 5 in Figure 1), said central control station comprising: transceiver units (reference numeral 201, 202, 302 in Figure 1) including at least one radio transceiver unit (reference numeral 201 in Figure 1) linked to a corresponding one of the base stations via a radio link (reference numeral 301 in Figure 1) and at least one optical transceiver unit (reference numeral 202 in Figure 1) linked to a corresponding one of the base stations via an optical fiber link (reference numeral 202 in Figure 1). Sonetaka differs from the claimed invention in that Sonetaka fails to specifically teach the inner workings of the central controller which would include a demultiplexing unit which demultiplexes a signal supplied from the upper-level station to generate a plurality of demultiplexed signals for transmission to the base stations, signal conversion units which are coupled to said demultiplexing unit and convert the respective demultiplexed signals into converted signals

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having a common transmission format; and a distribution unit which is provided between said signal conversion units and said transceiver units to provide changeable interconnections between said signal conversion units and said transceiver units for the converted signals having the common transmission format, said common transmission format enabling compatibility between radio links and optical fiber links with respect to the changeable interconnections. However, the use of a demultiplexing unit, signal conversion units, and a distribution unit within a central control station is well known in the art. Acampora, in the same field of endeavor, teaches the inner workings of a central control station (Figures 3a in conjunction with Figure 3d) and that it is well known in the art to demultiplex a signal (e.g. via the element which receives a single input and produces plural outputs to element 113, 114 in Figure 3d) supplied from an upper-level station and convert the demultiplexed signals into signals having a common transmission format (e.g. "baseband electronic signals prior to switching" of column 16 lines 42-49) enabling the signals to then be changeably interconnected via a distribution unit (reference numeral 117 in Figure 3a), thereby enabling compatibility between radio links and optical links (e.g. the signal format of Acampora is compatible with both radio links and optical links in that it is converted to a baseband signal before switching then fed to both optical and radio transceiver after switching) with respect to changeable interconnections. One skilled in the art would have been motivated to employ the inner workings of the central station taught by Acampora in the central station of Sonetaka in order to allow quality of service guarantees to be fulfilled by allowing common transmission format signals to be routed via a variety of different means (column 16 lines 24-49 of Acampora). Therefore, it would have been obvious to one skilled in

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the art at the time the invention was made to employ the inner workings of the central station taught by Acampora in the central station of Sonetaka.

Regarding claims 11 and 15, the combination of references teaches said signal conversion units include a modulation/demodulation unit (inherent in the conversion from received optical signals from the internet backbone to/from the “baseband electronic signals” in the bi-directional system of Acampora).

Regarding claims 12 and 16, the combination of references teaches that said signal conversion units include a modulation/demodulation unit (as discussed above) and a radio frequency conversion unit (inherent in “baseband” conversion in Acampora, or the modulator/demodulator shown in Figure 3a of Acampora).

Regarding claim 13 and 17, the combination of references and Sonetaka in particular teaches that said signal conversion units include a base-band modulation/demodulation unit (column 2 lines 30-39 in Sonetaka, inherent in “baseband” conversion in Acampora).

Response to Arguments

3. Applicant's arguments with respect to claims 11-13, 15-17, and 19-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB

A. Bello
AGUSTIN BELLO
PATENT EXAMINER
05/20/05